

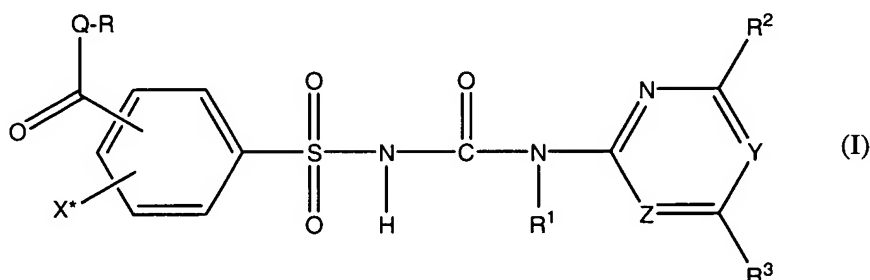
AMENDMENTS TO THE CLAIMS

Please amend the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents, as follows.

In the Claims:

Claim 1 (currently amended)

1. A process for preparing the compound of the formula (I) or salt salts thereof



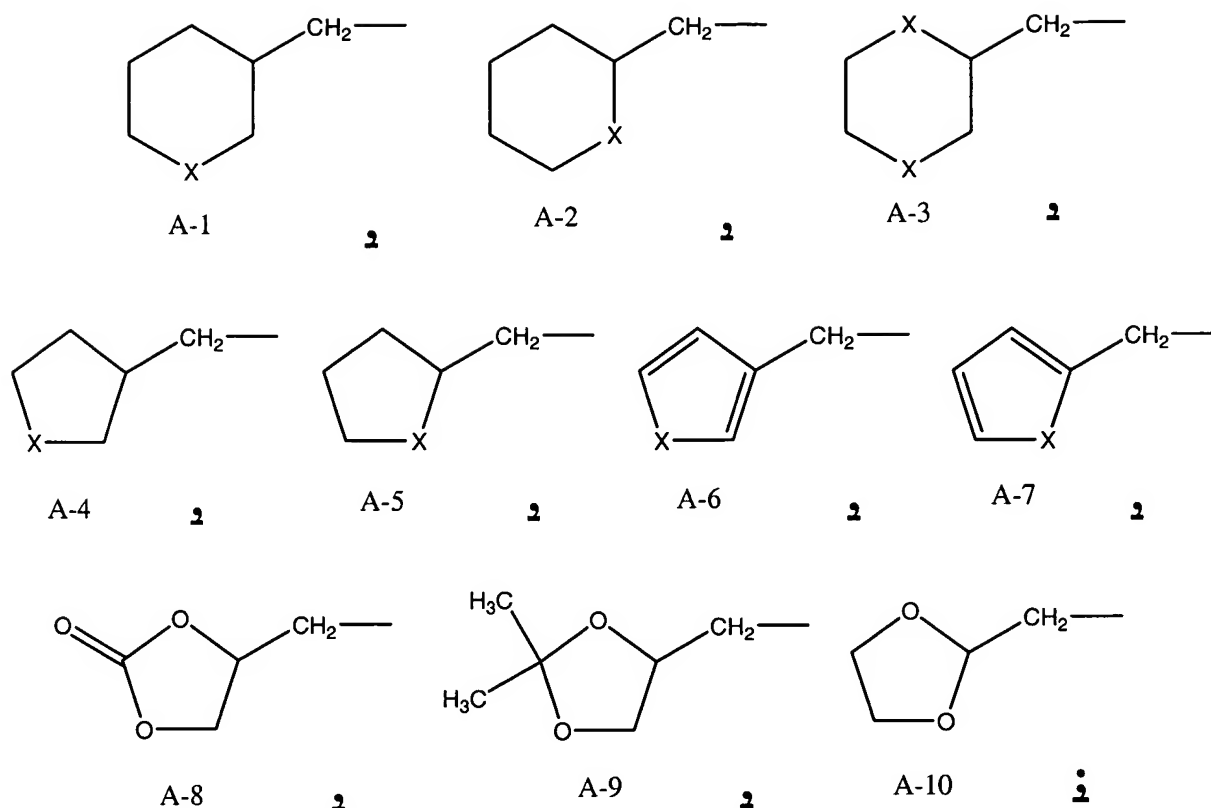
in which

Q is oxygen, sulfur or -N(R⁴)-,

X* is hydrogen, halogen, cyano, nitro, (C₁-C₃)-alkyl or methoxy,

Y, Z independently of one another are CH or N, where Y and Z are not simultaneously CH,

R is hydrogen, (C₁-C₁₂)-alkyl; (C₂-C₁₀)-alkenyl; (C₂-C₁₀)-alkynyl; (C₁-C₆)-alkyl, which is mono- to tetrasubstituted by radicals selected from the group consisting of halogen, (C₁-C₄)-alkoxy, (C₁-C₄)-alkylthio, CN, [(C₁-C₄)-alkoxy]carbonyl and (C₂-C₆)-alkenyl; or (C₃-C₈)-cycloalkyl, which is unsubstituted or substituted by radicals selected from the group consisting of (C₁-C₄)-alkyl, (C₁-C₄)-(alkoxy), (C₁-C₄)-alkylthio and halogen; (C₅-C₈)-cycloalkenyl; phenyl-(C₁-C₄)-alkyl, which is unsubstituted in the phenyl radical or substituted in the phenyl radical by one or more radicals selected from the group consisting of halogen, (C₁-C₄)-alkyl, (C₁-C₄)-alkoxy, (C₁-C₄)-haloalkyl, (C₁-C₄)-alkylthio, [(C₁-C₄)-alkoxy]carbonyl, [(C₁-C₄)-alkyl]carbonyloxy, carboxamide, [(C₁-C₄)-alkyl]-carbonylamino, [(C₁-C₄)-alkyl]aminocarbonyl, di[(C₁-C₄)-alkyl]-aminocarbonyl and nitro; or is a radical of the formulae A-1 to A-10



in which

X is O, S, S(O) or SO₂;

R¹ is hydrogen or (C₁-C₃)-alkyl;

R² is hydrogen, halogen, (C₁-C₃)-alkyl or (C₁-C₃)-alkoxy, where each of the two lastmentioned radicals is unsubstituted or mono- or polysubstituted by halogen or (C₁-C₃)-alkoxy;

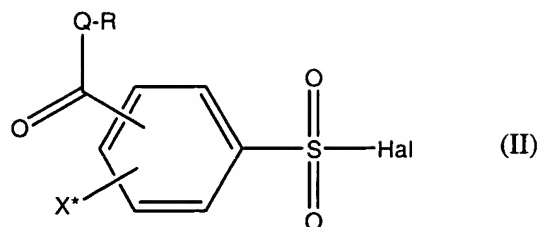
R³ is hydrogen, halogen, (C₁-C₃)-alkyl, (C₁-C₃)-alkoxy or (C₁-C₃)-alkylthio, where each of the three lastmentioned radicals is unsubstituted or mon- or polysubstituted by halogen or mono- or disubstituted by (C₁-C₃)-alkoxy or (C₁-C₃)-alkylthio; or is a radical of the formula NR⁵R⁶, (C₃-C₆)-cycloalkyl, (C₂-C₄)-alkenyl, (C₂-C₄)-alkynyl, (C₃-C₄)-alkenyloxy or (C₃-C₄)-alkynyloxy;

R⁴ is hydrogen, (C₁-C₄)-alkyl or (C₁-C₄)-alkoxy and

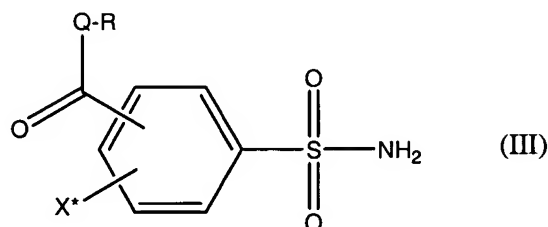
R⁵ and R⁶ independently of one another are hydrogen, (C₁-C₄)-alkyl, (C₃-C₄)-alkenyl, (C₁-C₄)-haloalkyl or (C₁-C₄)-alkoxy,

which comprises

- a) converting a compound of the formula (II)



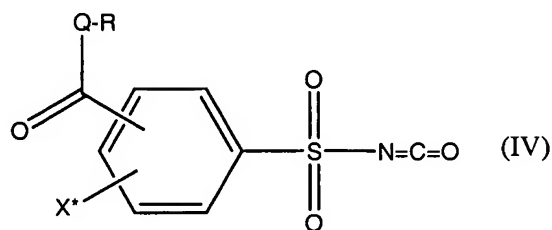
in which Hal is a halogen atom and R, Q and X* are as defined in formula (I),
by ammonolysis with ammonia into the compound of the formula (III)



in which R, Q and X* are as defined in formula (I),

or preferably

- (a1) ammonolyzing the compound of the formula (II) to give the compound of formula (III)
and carrying out the reaction in an organic solvent mixture comprising
- (1) one or more optionally halogenated aromatic hydrocarbons [solvent(1)] and
 - (2) one or more polar aprotic solvents [(solvent (2))]
- in a weight ratio of solvent (1):solvent (2) of 20:1 to 1:1, preferably of 10:1 to 1:4:1;
(b) reacting the resulting compound (III) with or without intermediate isolation with
phosgene to give the phenylsulfonyl isocyanate of the formula (IV)

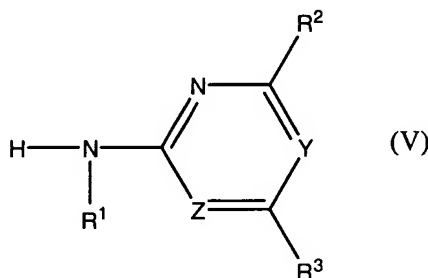


in which R, Q and X* are as defined in formula (I),

or preferably

(b1) in the case $X^* = \text{halogen}$, reacting the resulting compound (III) with or without intermediate isolation with phosgene to give the phenylsulfonyl isocyanate of the formula (IV) and carrying out the reaction with phosgene in an organic solvent in the presence of an isocyanate of the formula $R^1\text{-NCO}$ as catalyst, where R^1 is a hydrocarbon radical which is unsubstituted or substituted, or a mixture of a plurality of these isocyanates as catalyst ~~with or~~ without addition of an ~~amine base~~, amine base; and

(c) reacting the resulting compound (IV) with or without intermediate isolation in an organic solvent with an amine of the formula (V)



in which R^1 , R^2 , Y and Z are as defined in formula (I)

to give the sulfonylurea of the formula (I) or a salt thereof,

or preferably

(c1) reacting the resulting compound (IV) with or without intermediate isolation in an organic solvent with an amine of the formula (V) to give the compound of the formula (I) or a salt thereof, and carrying out the reaction in a solvent mixture of an optionally halogenated aromatic hydrocarbon having a boiling point of more than 110° and a polar ~~aprotic solvent~~, aprotic solvent;

where at least one of the ~~preferred partial~~ steps (a1) to (c1) is carried out in the process.

Claim 2 (original)

2. The process as claimed in claim 1, wherein in the formula (I) or a salt thereof
- Q is an oxygen atom,
- X* is hydrogen atom or halogen atom,
- R is (C₁-C₄)-alkyl; (C₂-C₄)-alkenyl; (C₂-C₄)-alkynyl; (C₁-C₄)-haloalkyl or (C₁-C₄)-alkoxy(C₁-C₄)-alkyl,
- R¹ is a hydrogen atom,
- R² is (C₁-C₄)-alkyl or (C₁-C₄)-alkoxy,
- R³ is (C₁-C₄)-alkyl or (C₁-C₄)-alkoxy,
- Y is a nitrogen atom and
- Z is a nitrogen atom or a group of the formula CH.

Claim 3 (original)

3. The process as claimed in claim 2, wherein in the formula (I) or a salt thereof
- X* is an iodine atom,
- R is methyl or ethyl,
- R² is methoxy,
- R³ is methyl and
- Z is a nitrogen atom.

Claim 4 (currently amended)

4. The process as claimed in claim 1 ~~any of claims 1 to 3~~, wherein the reaction in step (a1) is carried out in an organic solvent mixture comprising
- (1) one or more optionally ~~halogenated~~ halogenated aromatic hydrocarbons selected from the group consisting of xylene, toluene, chlorobenzene and dichlorobenzene [solvent(1)] and
- (2) one or more polar aprotic solvents [solvent (2)] selected from the group consisting of nitriles, esters, ethers, amides, ketones and mixtures of two or more of the polar solvents.

Claim 5 (currently amended)

5. The process as claimed in claim 1 ~~any of claims 1 to 4~~, wherein the reaction in step (B1) is carried out in the presence of one or more isocyanates selected from the group consisting of N-alkyl isocyanates, N-cycloalkyl isocyanates and N-aryl isocyanates as catalyst.

Claim 6 (currently amended)

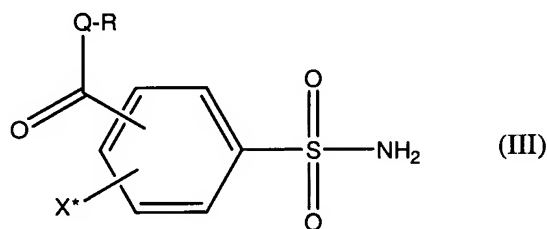
6. The process as claimed in claim 5 ~~any of claims 1 to 5~~, wherein the reaction in step (b1) is carried out in the presence of n-butyl isocyanate or cyclohexyl isocyanate as catalyst.

Claim 7 (currently amended)

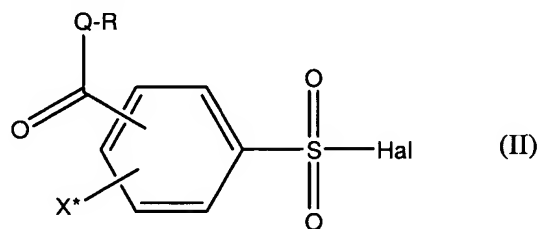
7. The process as claimed in claim 1 ~~any of claims 1 to 6~~, wherein the reaction in step (c1) is carried out in xylene/ethyl acetate or xylene/acetonitrile.

Claim 8 (currently amended)

8. A process for preparing a compound ~~compounds~~ of formula (III)



in which R, Q and X* are as defined in formula (I) according to claim 1 ~~any one of claims 1 to 3~~, which comprises converting a compound of the formula (II)

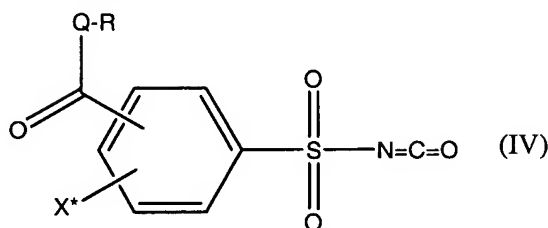


in which Hal is a halogen atom and R, Q and X* are as defined in formula (II) by ammonolysis with ammonia into the compound of the formula (III) and carrying out the reaction in an organic solvent mixture comprising

- (1) one or more optionally halogenated aromatic hydrocarbons [solvent(1)] and
 - (2) one or more polar aprotic solvents [(solvent (2))]
- in a weight ratio of solvent (1):solvent (2) of 20:1 to 1:1.

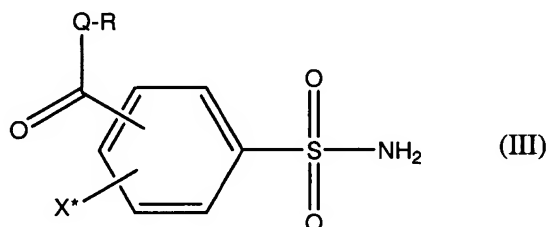
Claim 9 (currently amended)

9. A process for preparing a compound ~~compounds~~ of the formula (IV)



in which R and Q are as defined in formula (I) according to claim 1 ~~any one of claims 1 to 3~~ and X* is halogen,

which comprises reacting a compound of the formula (III)

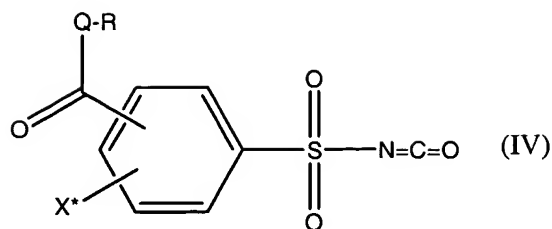


in which R, Q and X* are as defined in formula (II)

with phosgene in an organic solvent in the presence of one or more isocyanates of the formula R¹-NCO as catalyst, where R¹ is a hydrocarbon radical which is unsubstituted or substituted, ~~with or~~ without addition of an amine base or another base as cocatalyst, to give the phenylsulfonyl isocyanate of the formula (IV).

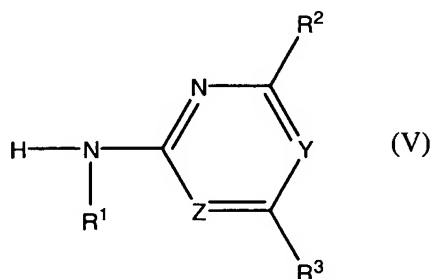
Claim 10 (currently amended)

10. A process for preparing a compound ~~compounds~~ of the formula (I) or salt ~~salts~~ thereof as defined in claim 1 ~~any of claims 1 to 3~~, which comprises reacting a compound of the formula (IV)



in which R, Q and X* are as defined in formula (I)

with an amine of the formula (V)



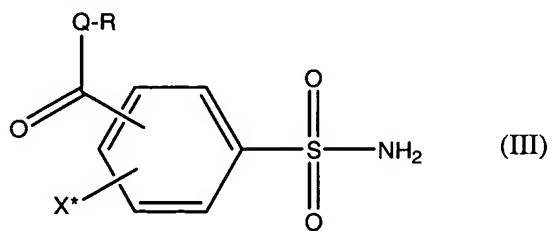
in which R¹, R², Y and Z are as defined in formula (I)

in a solvent mixture of an optionally halogenated aromatic hydrocarbon having a boiling point of more than 110°C and a polar aprotic solvent to give a sulfonylurea of the formula (I) or a salt thereof.

Claim 11 (currently amended)

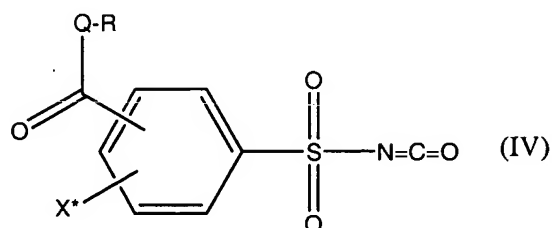
11. A process for preparing a compound ~~compounds~~ of the formula (I) or salt ~~salts~~ thereof as defined in claim 1 ~~any of claims 1 to 3~~, which comprises

(b) reacting a compound of the formula (III)



in which R, Q and X* are as defined in formula (I)

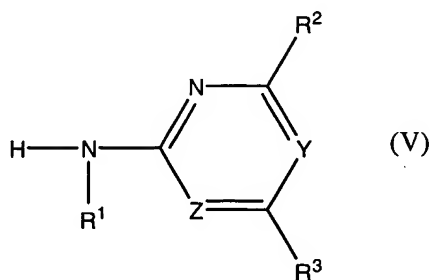
with phosgene to give the phenylsulfonyl isocyanate of the formula (IV)



in which R, Q and X* are as defined in formula (I),

or preferably,

- (b1) in the case X* = halogen, reacting the compound of the formula (II) with phosgene to give the phenylsulfonyl isocyanate of the formula (IV) and carrying out the reaction with phosgene in an organic solvent in the presence of an isocyanate of the formula R¹-NCO as catalyst, where R¹ is a hydrocarbon radical which is unsubstituted or substituted, or a mixture of a plurality of these isocyanates as catalyst ~~with or without addition of an amine base~~, amine base; and
- (c) reacting the resulting compound (IV) with or without intermediate isolation in an organic solvent with an amine of the formula (V)



in which R¹, R², Y and Z are as defined in formula (I) to give the sulfonylurea of the formula (I) or a salt thereof,

or preferably

- (c1) reacting the resulting compound (IV) with or without intermediate isolation in an organic solvent with an amine of the formula (V) to give the compound of the formula (I) or a salt thereof and carrying out the reaction in a solvent mixture of an optionally halogenated aromatic hydrocarbon having a boiling point of more than 110°C and a polar aprotic solvent,
- where at least one of the ~~preferred partial~~ steps (b1) and (c1) is carried out in the process.

Claim 12 (currently amended)

12. The process as claimed in any of claims 1 to 11, wherein on the phenyl ring
- the group -CO-Q-R is ortho to the substituted sulfonyl group,
 - the group X* = halogen is para to the group -CO-Q-R
 - X = halogen, ~~preferably iodine~~.

Claim 13 (new)

13. The process of claim 12, wherein X is iodine.

Claim 14 (new)

14. The process of claim 1, wherein in step (a1) the weight ratio of solvent (1):solvent (2) is in the range of 10:1 to 1.4:1.

Claim 15 (new)

15. The process as claimed in claim 2, wherein the reaction in step (a1) is carried out in an organic solvent mixture comprising
- (1) one or more optionally halogenated aromatic hydrocarbons selected from the group consisting of xylene, toluene, chlorobenzene and dichlorobenzene [solvent(1)] and
 - (2) one or more polar aprotic solvents [solvent (2)] selected from the group consisting of nitriles, esters, ethers, amides, ketones and mixtures of two or more of the polar solvents.

Claim 16 (new)

16. The process as claimed in claim 15, wherein the reaction in step (B1) is carried out in the presence of one or more isocyanates selected from the group consisting of N-alkyl isocyanates, N-cycloalkyl isocyanates and N-aryl isocyanates as catalyst.

Claim 17 (new)

17. The process as claimed in claim 16, wherein the reaction in step (b1) is carried out in the presence of n-butyl isocyanate or cyclohexyl isocyanate as catalyst.

Claim 18 (new)

18. The process as claimed in claim 16, wherein the reaction in step (c1) is carried out in xylene/ethyl acetate or xylene/acetonitrile.

Claim 19 (new)

19. The process as claimed in claim 18, wherein in the formula (I) or a salt thereof
- X* is an iodine atom,
- R is methyl or ethyl,
- R² is methoxy,
- R³ is methyl and
- Z is a nitrogen atom.

Claim 20 (new)

20. The process as claimed in claim 19, wherein in step (a1) the weight ratio of solvent (1):solvent (2) is in the range of 10:1 to 1.4:1